

**PRODUCTION OF ALPHA-OLEFIN OLIGOMER**

**Patent number:** JP8239331  
**Publication date:** 1996-09-17  
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**Classification:**  
**- international:** C07C11/02; B01J31/14; C07C2/30; C08F4/69;  
C08F10/00; C07B61/00  
**- european:**  
**Application number:** JP19950068602 19950302  
**Priority number(s):** JP19950068602 19950302

**Abstract of JP8239331**

**PURPOSE:** To obtain an  $\alpha$ -olefin oligomer in high yield and selectivity by allowing an  $\alpha$ -olefin to react with a specific chromium catalyst in a solvent and adding specific components to the recovered solvent containing catalyst components to readily reactivate the catalyst. **CONSTITUTION:** Using, as a chromium catalyst, a catalyst system comprising (a) a chromium compound such as chromium (III) 2-ethylhexanoate; (b) at least one selected from amines, amides and imides such as 2,5-dimethylpyrrol, (c) an alkylaluminum such as triethylaluminum, and (d) a halogen-containing compound such as tetrachloroethane, the catalyst components containing at least (c) and (d) selected from (b) through (d) are heated over 100 deg.C in a solvent such as heptane, an  $\alpha$ -olefin is reacted in a solvent such as n-heptane at 0-250 deg.C under normal pressure to 250kg/m<sup>2</sup> for 1 minute to 20 hours. The  $\alpha$ -olefin oligomer is distilled off from the reaction mixture and the components selected from an alkylating agent, a reducing agent and a halogen-containing agent are added to the recovered solvent containing the catalyst components to circulate these components. The molar ratio of the catalyst components is a:b:c:d=1:(0.1-10):(1-100):(0.1-20).

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